DOCUMENT RESUME

ED 155 872 EC 110 773

AUTHOR Dykes, Mary K.; And Others
TITLE Educational Programming for the Severely Impaired/Multiply Handicapped Child with Emphasis on the Physically Involved.
INSTITUTION Florida Educational Research and Development Council, Gainesville.
PUB DATE 77
NOTE 68p.
AVAILABLE FROM FERDC - 126 Building E, University of Florida, Gainesville, Florida 32611 [$2.00, individual copies; $6.00, subscription (4 copies)]
JOURNAL CIT Research Bulletin; v11 n4 p1-56 Sum 1977

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS *Educational Programs; Elementary Secondary Education; *Identification; *Multiply Handicapped; *Physically Handicapped; Program Administration; Program Design; *Program Development; Program Planning; *Severely Handicapped; Student Characteristics; Student Evaluation; Teacher Education; Teaching Skills

ABSTRACT

The monograph addresses aspects of educating severely impaired/multiply handicapped (particularly physically handicapped) children. An overview section provides background information on the population as well as on school programs designed for these students. The second section focuses on the following programing aspects: planning, identification, assessment and staffing, and educational program design. Chapter three, on personnel, reviews competencies for teachers. A fourth section on administration touches on such topics as scheduling, accountability, transportation, and facilities. (CL)

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## EDUCATIONAL PROGRAMMING FOR THE SEVERELY IMPAIRED/MULTIPLY HANDICAPPED CHILD WITH EMPHASIS ON THE PHYSICALLY INVOLVED

EC 110773

Volume 11 Summer, 1977 No. 4

2

RESEARCH BULLETIN

# EDUCATIONAL PROGRAMMING FOR THE SEVERLY IMPAIRED/MULTIPLY HANDICAPPED CHILD WITH EMPHASIS ON THE PHYSICALLY INVOLVED

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Published by
Florida Educational Research and Development Council, Inc.

Additional copies of this book may be obtained from
FERDC, c/o Lee County School Board
2055 Central Avenue, Ft. Myers, Florida - 33901

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## Forward

This monograph is concerned with programming for the severely impaired/multiply handicapped (SI/MH) school population. It is aimed at those persons such as teachers, principals, program consultants, student services personnel, directors of special education, and superintendents who are responsible for implementing and evaluating programs for this population.

Since the passage of state laws and later Public Law 94-142, and section 504 of the rehabilitation act many people in local school districts are now concerned with the provision of services to this population for the first time. It would, therefore, appear to be a strong contribution by FERDC to provide an overview of what SI/MH programming is or should be. Educators serving the severely handicapped regardless of whether a person is working in the delivery of services to the severely retarded, disturbed, aphasic, sensory, or physically handicapped should be able to obtain useful information from this monograph. It should be helpful for those staffing regular public school, special school, and institutional programs.

Dr. Mary K. Dykes has provided an up-to-date view of the problems which are being addressed in program planning. The information provided is based on her scholarly background in this area and a wide range of day-to-day experiences working with the children and program staff personnel.

The FERDC is grateful to Drs. Dykes, Bullock and Kelly for preparing this bulletin on a most important and current topic.

Dr. William F. Breivogel
Executive Secretary

Summer, 1977

# Education for the Severely Impaired/Multiply Handicapped with Emphasis on the Physically Involved Child

## Chapter I

## Overview

As the result of numerous legislative, congressional and judiciary acts within the last five to ten years, it has been clearly established that all children, regardless of the nature or degree of their handicap, have the right to a public education which is specifically designed to meet their needs and which occurs in the least restrictive environment as determined through due process (Gilhool, 1973; Weintraub, 1976).

The state mandate which guarantees each individual the right to an appropriate public education was signed into law in July, 1968 and was followed in November, 1975 by the "Education for All Handicapped Children Act of 1975" or public law 94-142. As defined by this federal act, handicapped persons between the ages of three and twenty-one are to be provided appropriate educational programs by the various states. Further provisions of 94-142 include the development of a comprehensive state plan to meet the needs of all handicapped children and individual education programs for each child (Weintraub, 1976).

In Florida there has been permissive legislation for 0-21 year old severely handicapped students since 1973. Mandatory service requirements exist for all five year olds through completion of 13 years of schooling. Although some districts have provided for the severely and multiply handicapped for years, many local education agencies are now developing more local and comprehensive services for these children.

P.L. 94-142 has had no effect on the service mandate for Florida schools since the population was to be served under state regulations.

## The Population

It is estimated that there are 7 million handicapped children in the United States of which 1 million receive no service through an educational system. Of these 7 million handicapped children, only 40% will receive the special educational services that they need (Weintraub, Abeson & Braddock, 1971). Anderson and Greer (1976) report that there is an estimated one severely and profoundly retarded child per 1,000 school-age children. This figure does not include every child who is severely handicapped in a way other than retardation. In a study of the prevalence of multiple disabilities, Farber (1959) described a rate of 11 per 1,000 school-age children. As a general rule, studies reported in Wolf and Anderson (1969) tend to support the hypothesis that approximately 70% to 80% of handicapped children have multiple handicaps. As school districts begin to plan to implement services for the severely impaired, multiply and/or profoundly handicapped it seems appropriate to figure that there are approximately 5 per 1,000 individuals in the community between the chronological ages of birth and 21 who will need the services provided in such a program.

Wolf and Anderson (1969) cite numerous reasons why more severely impaired children are being identified today than previously. Their eight reasons are:

> (1) increased number of births in general; (2) sophistication of research and knowledge related to communicable and infectious diseases; (3) establishment and delivery of more and better public health services; (4) advances in prenatal care; (5) reduction in infant deaths; (6) improved nutrition quality and quantity available to more individuals; (7) increased educational levels of the masses; (8) better housing. (p. 8)

Perhaps one of the most frequently related improvements is in the care and maintenance of premature infants. Figures for incidence of multiply handicapped individuals born prematurely range from 22% to 70%.

## Characteristics of the Population

Perhaps the most outstanding characteristic of this population is that no two children exhibit the same nature and degree of handicapping conditions. The fact that a child is labeled severely handicapped will have little meaning for the person responsible for programming for the individual. Within an early childhood education for the handicapped (ECEH) program designed for the severely handicapped there may be included children who are:

1. deaf-blind
2. aphasic
3. physically impaired/multiply handicapped
4. autistic
5. retarded-deaf
6. gifted
7. cerebral palsied-speech handicapped
8. brain-injured
9. significantly mentally delayed

Characteristics of the population which have been reported in the literature and which may be found to some degree or in some combination in various children in the program include: (1) lack of communication with others; (2) self stimulation-including physical and vocal behavior; (3) failure to thrive; (4) self mutilation; (5) inability to initiate or gain pleasure from social interaction; (6) use of toys and other objects to facilitate sensory stimulation rather than for play; and (7) lack of orderly development as expected on developmental hierarchies - including the maintenance of primitive reflex patterns well beyond expected age.

Anderson, Greer and Dietrich (1976) report that two generalized characteristics can be made for the severely retarded. These include some type of gross physical abnormality or neurological involvement and an inability to care for themselves. Regardless of how advanced and efficient educators become with behavior change methodology, most of the children serviced in programs for the severely handicapped will remain dependent to some degree during their lifetime.

Based on the characteristics above the remainder of this monograph will be devoted to programming for this population. The term severely impaired/multiply handicapped (SI/MH) will be used

to designate the population.

School Program

The nature and degree of handicapping condition(s) of the child as well as the global needs of the family and child are the major considerations in deciding the type of educational program that will be most effective in helping the child to gain skills. These considerations must be coupled with the types of programs available in the district or on a regional or national basis. If the child lives in a rural community and is in need of a 24 hour service faciltiy or a comprehensive hospital service, it is unrealistic to expect that these services will be made available in the local district even under the new legislation.

Various types of programs have been developed to provide for the severely handicapped. The most appropriate placement is the one that is the least different or restrictive and which allows the student to gain skills as rapidly as possible. If the child cannot function in the regular classroom, then he should be educated in the educational model that is as close to it in design as possible. The more mildly involved in motor and learning skills may be serviced in the regular classroom with support from a consultant or itinerant teacher. Such students as the blind and health impaired may be best serviced in this model or in a resource room where they receive special academic or management skill training during a part of the day. The special class program is frequently used to provide basic instruction for more severely handicapped children. Students in a special class

should still participate in as many activities as possible with children in the mainstream programs.

If the child requires services of a nature that cannot be administered in the regular school then some districts have established special schools. These schools have a disadvantage of isolation even if they are built in close proximity to a regular school. Even though walkways connect the two buildings, it is rare to see the handicapped child joining the regular program students and even more rare to see students in the mainstream program, but who could benefit from some help from the specially trained staff, traveling from the regular facility to the special facility for help. Inclement weather or the terrain are the most frequently heard non-personnel reasons as to why children are not staffed across the two programs. More accurately, a lack of communication and joint planning between two autonomous facility staffs, both trying to generate as many funding dollars as possible, is observed as the reason for lack of development of an integrated program as required by the child. It is the role of the principal and special education staff to develop positive relationships with the regular classroom teachers so that integration of students is facilitated.

Other programs which have been used to provide educational services to the severely handicapped include those that are based in a hospital, home, or residential institution. Hospital programs for the child must include district and hospital educational personnel planning both before the child comes to the hospital and upon his return to the community program. Homebound programs have frequently been misused in districts where the

severely physically and emotionally disturbed are only serviced at home. Some districts have tried to offer this as the only educational service for the severely handicapped; however, this type of program has not been interpreted legally as a comprehensive program which provides the types of activities needed. It is best used for short term (such as post-surgery) periods and is not a long term comprehensive service delivery model as are most others discussed here.

The residential school may be for the severely orthopedically involved, the sensory deficit child, the mentally retarded, the emotionally disturbed or the adjudicated individual. Traditionally, institutions for the retarded have housed numerous individuals who were not necessarily retarded but who were multiply handicapped and therefore, considered retarded. Major efforts are being made to deinstitutionalize these various populations and to provide service for the individual and his family within the local community or county unit.

Regardless of the type of facility or program for the severely handicapped, the staff must include professionals trained in a variety of fields. The learner should constantly be evaluated to ascertain if he can become part of a less restrictive program. Figure 1 shows programs which might be appropriate for various types of children labeled severely handicapped. A broad continuum of service delivery models should be available so that as soon as the child is ready he can move to a less restrictive environment.

Figure 1

Continuum of Services

Basic Community and Residential Services

| Community Services | Residential Services |
|---|---|
| Services Which Must Be Available:<br>1. Adequate Home-Like Environment:<br>A. Natural Home<br>B. Foster Home<br>C. Group Home<br>D. Nursing Home<br>E. Independent Living Facility<br>2. Health Services<br>3. Education and Training<br>4. Employment (Open or Sheltered)<br>5. Mobility | 1. Specialized Diagnosis and Evaluation<br>2. Specialized Short-Term Training and Treatment Program<br>3. Specialized Extended Care<br>4. Specialized Back-Up and Technical Consultancy Services |
| Services Which Should Be Available:<br>1. Recreational<br>2. Religious<br>3. All other services available to any citizen, e.g., commercial welfare, family counseling, and protective. | |

From: Scheerenberger, R. C. in R. Anderson and S. Greer. Education of the Severely and Profoundly Handicapped, Baltimore: Univ. Park Press, 1976.

## Chapter II

## Programming

### Planning a Program

In order to implement an accountable program for this population, the following must be considered: (1) identification and evaluation of the population to be served; (2) comprehensive service for 0-21 year olds; (3) community services and facilities; (4) existing local education agency and state department of education programs, equipment and personnel; (5) parental involvement; (6) applicable service delivery models and (7) provision for delivery of services including therapies, social assistance and medical evaluation.

### Identification of the Population

The major efforts to identify children for programs for the severely handicapped, physically impaired and/or multiply handicapped, should focus on three areas: (1) serviced populations already in the schools but for whom the current placement is inappropriate to facilitate the implementation of optional educational programming to meet specific areas; (2) non serviced children and youth who have never attended school or who have been denied admission to existing programs due to the severity of handicapping conditions and (3) pre-school age children who meet state criteria for service in early childhood education for the handicapped programs and/or who will need placement in a program for the severely handicapped upon entry into school. A fourth effort should be made to continuously identify children in the district who, due to disease, accident or non-stable condition become

handicapped to the degree that they are in need of services for the handicapped.

The national coordinating office for Regional Resource Centers and the National Association of State Directors of Special Education sponsored a child find conference in 1975 and disseminated several of the more comprehensive accountable models in Child Find. This reference may be of significant value to anyone initiating a search and identification program. Although the models are presented as comprehensive state programs, most techniques can be modified for use at the district level.

The checklist in Table 1 contains an extensive list of groups to inform about available services. In addition the following techniques for information gathering have been used in school districts throughout the United States: (1) flyers in bank and utility statements; (2) letters to parents of children in school programs; (3) agency contacts - local, county, regional and state; (4) stuffers included in grocery sacks; (5) notices and human interest spots on television and radio and in the newspaper; (6) notices for church bulletins to all ministers; (7) letters of information concerning the law and programs available to private physicians, clinics and public health centers and (8) survey of postal carriers.

Personnel in the agency responsible for conducting the identification project should have developed a data sheet and a process procedure prior to bombarding the community for information. The data sheet should include identification information about the child - name, parents, birthdate, etc. and statements concerning: (1) current status

TABLE 1 - COMMUNITY RESOURCE CHECKLIST

Public Agencies:

___State Department of Education
___Public Health Department
___Welfare Department
___Children's Services Division
___Juvenile Department
___Crippled Children's Division
___Probation Office
___Park and Recreation Department
___School Board(s)
___Vocational Rehabilitation
___Intermediate Education Districts
___Councils of Government
___Social Security
___Fire Department
___Mail Carriers
___Police Department
___Child Development Centers
___Mental Health Centers
___Youth Training Centers
___State School for Deaf & Blind
___State Schools
___State Hospitals

Social and Civil Groups:

___Senior Citizens Groups
___Elks
___Lions
___Moose
___Soroptimists
___Masons
___International Order of Odd Fellows
___Knights of Columbus
___Civitans
___Area Alumni Clubs
___Jaycees, Jay-c-ettes
___Boy and Girl Scouts
___YM-YWCA
___Rotary
___Kiwanis
___Area Women's Clubs
___Optimists
___League of Women Voters
___Eagles
___Altrusa
___Red Cross
___Shriners
___American Legion
___Veterans of Foreign Wars
___Cystic Fibrosis
___Catholic Charities
___St. Vincent de Paul Society
___Other_____

Private Organizations:

___Elks Rehabilitation
___Association for Retarded Citizens
___Epileptic League
___Easter Seal Society for Crippled Children
___Council for Exceptional Children
___Association for Children with Learning Disabilities
___Association for the Deaf
___Congress of Parents and Teachers
___Commission for the Blind
___Mental Health Association
___March of Dimes Foundation
___Society of Autistic Children
___United Cerebral Palsy
___Sectarian and/or non-sectarian community centers
___All area churches and church groups
___Planned Parenthood

Vocation/Professional Organizations

___Teachers' Organizations
___Foresters
___Grange
___Farm Bureau
___National Farmer's Organization
___Farmer's Union
___4-H
___Labor Unions
___Businessmen's Associations
___Employee's Associations
___Chamber of Commerce
___Medical Society
___Dental Society
___Business and Professional Women
___4-C Programs
___Local Hospitals
___Community Colleges
___College Special Education Dept.
___Head Start/Preschool Programs
___Day Care Programs
___Parents of Handicapped Children
___Cooperatives
___Public Utilities

Adapted From Child Find, NASDSE, Washington, D.C. 1975

of the child - served, non served, etc.; (2) special needs; (3) nature and degree of handicapping conditions; (4) diagnostic information availability and the sources for such information; (5) current public or private agencies serving the child; and (6) other relevant data. Samples of data collection forms are available in Child Find. Specific samples of forms from various projects may be obtained by writing project officers listed in Child Find or from the State Child Find Office within the special education or exceptional student services division of each state department of education.

It has been reported by numerous directors of special education that they had difficulty finding enough children to establish the program initially, but once the program was operationalized, more and more children were referred for placement. It may take as long as six months to a year to establish all contacts and staffing conferences and arrange transportation for the children in the initial program. On reports received by Florida State Department of Education personnel for programs during 1974-77 it was not uncommon for a program staff to have reported two or three times the number of students during the second year of operation than were served during the first year.

## Assessment and Staffing

Once the child has been identified, a comprehensive assessment should be conducted or contracted by school district personnel to determine the child's abilities in: (1) self care and maintenance - ADL, Safety, Mobility, etc.; (2) academic tasks; (3) social/emotional development; (4) sensory acuity processing, and aptitude; (5) language and speech

development; (6) vocational skills (if appropriate). If the child is severely involved to the degree that local special education, school psychology, and resource and diagnostic center staff members are unable to conduct an appropriate and detailed evaluation, then state and federal funds may be used to have specialist within the United States evaluate the child. The Regional Resource Centers (RRC's) are primarily responsible for this level of services and are consulted after area resource center staff members have exhausted resources available to them.

Assessment Process

Severely handicapped individuals are rarely able to respond as required on instruments used to assess normal and mild to moderately handicapped children. This does NOT mean that the child is NOT TESTABLE as is frequently reported in student folders by psychologists and educators. It does mean that different systems and techniques must be used to tap the abilities of the child. Evaluations should consist of numerous measures other than or in addition to the more classic standardized instruments. Some measures which may be appropriate for use with severely handicapped include: (1) developmental scales with comprehensive pinpoints and systems for marking responses other than "yes/no" as to whether a task is completed; (2) behavioral observation systems; (3) criterion referenced or domain referenced measures which are appropriate in modality, format, and content.

Some measures of the more classic design which may be appropriate for evaluation of the severely handicapped and which should be known to and practiced by school psychologists or special education

staff members include: (1) Katz modifications of the Stanford-Binet; (2) French's pictorial test of intelligence; (3) Columbia mental maturity; (4) Lieter International and the Arthur adaption; (5) Hiskey-Nebraska; (6) ITPA; (7) Merrill-Palmer; (8) Ammons; (9) Vineland and the Iscoe Profile; (10) Preschool attainment record; (11) Peabody picture vocabulary test; (12) Motor free visual perception test; (13) Peabody individual achievement test; and (14) Raven's progressive matrices. All of the above measures have been reported in the literature for many years as instruments which are more facilitative in tapping abilities of the physically and/or severely involved individual. The most historical or long term reports for instruments selected for use with this population include the Kohs blocks, Porteus maze, Sequin or Wetmer form board, Bender-Gestalt, and the Healy picture completion (Dykes, 1970).

For populations of severely handicapped, developmentally young children there are a number of developmental pinpoint instruments available such as the Portage, Learning Accomplishment Profile, Peabody Motor Development, AAMD, Denver Developmental. The Gesell, Catell and Bailey scales of development may also be useful in assessment of this population. See Table 2 for a list of tests which may be appropriate for the severely handicapped.

Observation and data collection systems such as those developed by Lindsley (1972), Wolking (1975), and Pennypacker (1972) must also be used within the comprehensive assessment battery.

Table 2

Assessment Tools for the Severely Handicapped

AAMD Adaptive Behavior Scales. Kazuo Nibara, Ray Foster, Max Shellhaos, and Henry Leland, Edmark Associates, 1329 Northup Way, Bellvue, Washington, 98005, 1974, Manual - $2.00, Single Scale - $1.00.

Assessment in Infancy: Ordinal Scales of Psychologocal Development. Ina C. Uzgiris and J. McV. Hunt, University of Illinois Press, Urbana, Illinois, $10.00.

Bayley Sclaes of Infant Development. Psychological Corporation, N.Y., 1969.

Balthazar Scales of Adaptive Behavior I: The Scales of Functional Independence. Earl Balthazar, Ph.D., Consulting Psychology, Inc., 577 College Avenue, Palo Alto, CA, 94306, Complete set - $8.00.

BCP-The Santa Cruz Special Education Management System. Vort Corporation, P. O. Box 11132, Palo Alto, CA, 94306, BCP Observation Book - $6.00, Chart - $3.95.

The BKR Basic Preschool Curriculum. Lousie Bradtke, Bill Kirkpatrick, and Katherine Rosenblatt, BKR Educational Products, Inc., 1790 S.W. 43rd Way, Ft. Lauderdale, FL, 33314, Curriculum Packet - $25.00.

Table 2 (continued)

Cain Levine, Consulting Psychologists, 577 College Ave., Palo Alto, CA, 64306.

Callier-Azusa Scale, Callier Center, Dallas, Texas or Council for Exceptional Children, Reston, Virginia, 1975.

Camelot Behavior Cnecklist. Ray W. Foster, Edmark Associates, 1329 Northup Way, Bellevue, WA, 98005, Checklists - $2.50.

Cattell Infant Intelligence Scale. Cattell, P., Psychological Corp., 1950.

Columbia Mental Maturity Scale, 3rd Edition. Burgemeister, Blum & Lorge, 1972, Harcourt, Brace, Jovanovich, New York.

Communication Assessment and Intervention Strategies. Lyle Lloyd, University Park Press, Baltimore, Maryland, 21202.

Denver Developmental Screening Test. Frankenburg & Dodds, University of Colorado Medical School, Denver, Colorado.

Developmental Profile. Gerald D. Alpern, Ph.D., and Thomas J. Boll, Ph.D., Psychological Development Publications, 7150 Lakeside Drive, Indianapolis, Indiana, 47278, Profile Manual - $10.00.

Developmental Task Analysis. Robert E. Valett, Ed.D., Fearon Publishers/Lear Siegler, Inc., 6 Davis Drive, Belmont, CA, 94002, 1969, Single Copy - $1.00, 25 copies - $5.00.

Table 2 (continued)

Developmental Pinpoints. Gross & Cohen, Experimental Education Unit, Child Development & M.R. Center, University of Washington, Seattle, Washington.

Developmental Therapy. M. W. Wood, University Park Press, Baltimore, Maryland, 21202.

Gesell Developmental Scales. Ing & Ames, Harper & Row, 1965.

Hiskey-Nebraska Test of Learning Aptitude. Union College Press, Lincoln, Nebraska, 1966.

Illinois Test of Psycholinguistic Abilities. Samuel A. Kirk, James J. McCarthy, and Winifred D. Kirk, University of Illinois Press, Urbana, 61801, Kit - $58.80.

Learning Accomplishment Profile for Infants (LAP-I). Patricia M. Griffin and Anne R. Sanford, Kaplan School Supply Corporation, 600 Jonestown Road, Winston-Salem, N.C., 27103, 1975, Manual/Checklist - $3.00.

Leiter International Performance Scale. R. Leiter, Stoelting. Chicago, 1948. (Also Arthur Adaptation)

The Lexington Developmental Scale. John V. Irwin, Ph.D., Margaret Norris Ward, M.A., Carol C. Deen, M.S., and Ann B. Greis, The Child Development Centers of U.C.P.C., P. O. Box 8003, 465 Springhill Drive, Lexington, Kentucky, 40503, 1973, Manual - $5.00, Single Copy - $ .25.



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Table 2 (continued)

Lincoln-Oseretsky Motor Development Scale. American Guidance Service, Circle Pines, Minn.

Marshalltown Behavior Development Profile. Mike Donahue, John D. Montgomer, Arlene F. Keiser, Vicky L. Roechker, Linda I. Smith, and Milford F. Walden, Department of Special Education, Marshall Poweshiek Point County School System, 9 Westwood Drive, Marshalltown, Iowa, 50158, Profile Manual - $3.00.

McCarthy Scales of Children's Abilities. Psychological Corp., N.Y., 1972.

Merrill-Palmer Scale. Stoelting Co., 1350 S. Kostner Ave., Chicago, Ill., 60623.

Minnesota Preschool Scale. Florence Goodenough, Katherine Maurer, and Van Wagener, American Guidance Services, Inc., Publishers' Bldg., Circle Pines, Minnesota, Complete Set - $43.00.

Ordinal Scales of Psychological Development. Uzgiris & Hunt, University of Illinois Press, Champaign, 1975.

Peabody Developmental Motor Scales (Revised Experimental Edition). Rhonda Folio & Rebecca F. DuBose, IMRID, Box 163, George Peabody College, Nashville, Tennessee, 37203.

Progress Assessment Chart. Gunzburg, SEFA, Birmingham, England.

Table 2 (continued)

Pupil Developmental Progress Scale. Monterey County, California Office of Education, P. O. Box 851, Special Education Department, Salinas, Calif.

Pennsylvania Training Model - Individual Assessment Guide. M. Ellen Somerton and Keith D. Turner, Ph.D., 1975, Pennsylvania Training Model, Pennsylvania Department of Education, Bureau of Special and Compensatory Education, 123 Forster Street, Harrisburg, PA, 17102, 1975, Limited Edition - Free.

Pictoral Test of Intelligence. French, Houghton Mifflin, Boston, 1964.

The Portage Guide to Early Education. David Shearer, et al., Cooperative Education Service Agency No. 12, 412 East Slifer St., Portage, Wisconsin, 53901, Kit - $21.00.

Preschool Attainment Record. Edgar A. Doll, Ph.D., American Guidance Service, Inc., Publishers' Bldg., Circle Pines, Minnesota, 55014, Record Blanks (25) - $1.60, Manual - $2.90.

Preschool Language Scale. Irla Lee Zimmerman, Violette G. Steiner, and Robert L. Evatt, Charles E. Merrill Publishing Co., 1300 Alum Creek Drive, Columbus, Ohio, 43216, Set - $4.95, Extra Scales (10) - $3.95.

Progressive Matrices. Raven, J. C., H. K. Lewis & Co., London, W.C.I., 1962.



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Table 2 (continued)

Project Memphis. Alton D. Quick, Ed.D., Thomas L. Little, Ed.D., and A. Ann Campbell, M.S., Lear Siegler, Inc./Fearon Publishers, Davis Drive, Belmont, CA, 94002, Single Set - $1.50, Set of 25 - $11.00.

Skills Achievement Profile (SAP). Margaret Young, Coastal Center, SC Dept. of Mental Retardation, Ladson, S.C., 29456, 1974, Limited edition - free.

Structure of the Intellect (SOI). Meeker, SOI Institute, 214 Main Street, El Sequndo, CA, 90245.

The Student Progress Record. Mental Health Division, Department of Human Resources, 2570 Center St., N.E., Salem, Oregon, 97310, Limited edition - gree.

The TARC Assessment System. Wayne Sailor, Ph.D., and Bonnie Jean Mix, B.A., H. & H. Enterprises, Inc., P. O. Box 3342, Lawrence, KS, 66044, 1975, Manual/ten inventories - $5.95.

The Teaching Research Motor-Development Scale. H. D. "Bud" Fredericks, Victor L. Baldwin, Phillip Doughty, L. James Walter, Charles C. Thomas, Publisher, 301-327 East Lawrence Ave., Springfield, Ill., Scale - $7.00.

T.M.R. Performance Profile for the Severely and Moderately Retarded. Alfred J. DiNola, Bernard P. Kaminsky, and Allen E. Sternfeld, Reporting Service for Children, 563 Westview Ave., Ridgefield, N.J., 07657, Kit - $15.00.

Table 2 (continued)

Verbal Language Development Scale. Merlin J. Mecham, American Guidance Service, Inc., Publishers' Bldg., Circle Pines, Minn., 55014, Manual - $ .90 - 2, Score Sheets (25) - $2.35 - 1.

Vineland Social Maturity Scale. Edgar A. Doll, Ph.D., American Guidance Service, Inc., Publishers' Bldg., Circle Pines, Minn., 55014, Manual - $1.80, Record Blanks - $2.70.[1]

Wabash Guide to Early Developmental Training. Wabash Center for the Mentally Retarded, Layfayette, Indiana.

[1]Iscoe, I. Profile for the Vineland Scale and Some Clinical Applications. Journal of Clinical Psychology, Vol. XVI, No. 1, 14-16, Jan., 1960



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Interview procedures, neurological information, and cognitive-style analysis systems such as those of Piaget, Brunner, and Gagne may be used to gather information which will be useful in programming for the child.

It is important to realize that in almost all types of testing there are tools for screening, for placement, and for programming. One of the errors most frequently made in assessment of the severely handicapped is the use of the wrong level of test, e.g., trying to build an individual program from screening or placement level instruments. Regardless of the measures used, it is important that prior to beginning testing we are satisfied that (1) the battery will pinpoint the child's strengths instead of telling us only what he cannot do and (2) the items and formats of the items are appropriate for the child and the level of information desired. Table 3 contains a list of questions that should be answered prior to initiating testing of any severely handicapped child.

## Staffing

The most crucial factors in the building of an ideal staff for a program for the multiply handicapped are: (1) staff members desire to work with these children, and (2) staff members ascribe to the philosophy that a transdisciplinary team must work together closely to best meet the specific needs of the children. The staff realizes that the parents are the primary care-givers for the child and that they must be included as equal partners in the transdisciplinary team.

Table 3

Points to Know Before Initiating Testing
of a Severely Handicapped Child

1. What is the child's primary response mode?

2. Functional use of senses - hearing and vision - not just acuity scores but ability to use hearing and vision for educational purpose - total visual field use? peripheral vision use? single image or blurred non-focused vision? Does vision/hearing seem to be at the same level or does it fluctuate depending on environmental conditions, physiological state, etc.? Can the child respond to verbal/visual directions? Has he shown a preference for one or the other?

3. Functional use of tactual/kinesthetic sensory data - Can the child take in and use data from these modes? Can the child hold a pencil or crayon? How? Must paper be secured to desk for child to write on it?

4. Can the child communicate "yes" and/or "no"? What sounds or motions does the child use to indicate yes/no? Does he have a basic vocabulary? How does he make needs known?

5. What positions are most facilitative for child's performance and comfort during testing? - wheel chair, wedge, mat, table and arm chair, table and regular chair? mom's lap? Are there any positions to be avoided?

6. What are child's general developmental levels in intellectual, motor and soc./emot., language, ADL skills?



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Table 3 (continued)

7. What does the child like to do, see, etc., that could be used as a reinforcer during testing?

8. Time - Approximately how long can the child work in one session? Does he tire easily? What are the initial signs of fatigue?

9. Physiological State - Are there physiological problems that may occur during testing, e.g., convulsions, gagging, psychotic episode, etc.?

10. Learning Problems - Have classic signs of learning disabilities been observed - perseveration? distractability? non attending? etc. Have efficient/effective methods been found to intercept these when they occur?

11. Testing protocols - Are there types of test items the child should not be expected to perform? Performance? Writing, stacking, sorting, pointing, etc. Verbal responses-questioning - yes/no only, etc.

12. Are there other recent evaluations available on this child? OT, PT, language, medical, educational, etc.? Are there specific observations of behavior or performance that I am being asked to make? Are there specific questions of performance that I need to focus on in my evaluation?

13. Other resources - What other professional evaluations should I see are conducted on this child - OT, language, etc. If I cannot obtain the data I need are there others in the community who can conduct the evaluation? Are

Table 3 (continued)

there others in the state or region that can evaluate the child? What resources are available through D & R for the additional or more adequate assessment of the child?

14. HAVE I DEVELOPED A PLAN TO IDENTIFY THE CHILD'S STRENGTHS OR MERELY PUT TOGETHER TOOLS TO SHOW NON-FUNCTIONAL SKILLS & AREAS OF DISABILITY?

There should be no more than six severely handicapped children per teacher and teacher aide unit. For less severely involved the number may rise to fifteen if some of the children are included in the mainstream of educational programming during part of the day. Each young child should have at least two thirty minute sessions specifically assigned in physical, speech, and occupational therapy per week if the therapy is needed. By junior high school age many of the children will require less physical and speech therapy; however, periodic evaluation should be continued in these areas throughout the child's schooling.

All therapists have the responsibilities of: (1) assessing the programming for therapeutic intervention for the child; (2) communicating and demonstrating therapeutic procedures which other staff members should use with the child; (3) keeping records of changes and goals for the child; (4) teaching parents or primary care-givers to implement a home follow-through program; and (5) serving as a member of the transdisciplinary team to develop an integrated, comprehensive program for the child. Other personnel who can be of vital importance on the team include social workers, school or public health personnel, recreation therapists, medical staff specialists, and state or community agency staff who are also servicing the family.

## Educational Program Design

If the child requires the services of the teacher of the severely or physically impaired/multiply handicapped unit then the following curriculum topics must be evaluated and prioritized as to the need for and amount and level of instruc-

tion in each area which the child will need. The topics are presented in a hierarchical format since other educational and staff personnel should be available to provide adequate instruction in those topics toward the end of the list. Those areas at the top of the list are those in which the well-trained teacher of the multiply handicapped has expertise which other educational staff members probably do not have. Curriculum should include: (1) Safety - self-maintenance, falling, maintenance of orthosis, etc.; (2) Activities of Daily Living (ADL) feeding, dressing, grooming, mobility; (3) Communication - verbal, postural (including gestures and non-verbal means), mechanical (typing, voice systems, etc.); (4) Socialization/Interaction - emotional and social development, adaptation and coping skills, etc.; (5) Leisure time skills - arts, crafts, television watching, music, etc.; (6) Adapted PE, recreation, exercise; (7) Vocational/career skills; (8) Academics - developmental or remedial skill development.

Each area on this list should be addressed in the individual education program (IEP) developed for the child if he needs to build skill in the area. In addition, a list of the items which must be included in the IEP is included as Table 4. An example of an IEP format which may be useful is found in Table 5.

Table 4

Minimal Federal Requirements for an
Individual Education Plan
(Required for each student by Fall '78 - PL 94-142)

Statements to be included in each plan:

1. Present level of performance - across developmental areas

2. Annual goals and short term goals

3. Specific education services to be provided

4. Extent to which the child will be able to participate in regular education program

5. Projected date for the initiation and duration of service(s)

6. Appropriate criteria and evaluation procedures

7. Schedule for determining at least annually, whether instructional objectives have been met or are being met.

Table 5

INDIVIDUAL EDUCATION PROGRAM DATA SUMMARY SHEET

Learner:
Birthdate: Age:
School:
Grade:
Program:

ADMINISTRATIVE ACTIONS-PLACEMENT:
(Educational services to be provided including activities to be conducted in mainstream program)

Handicapping Conditions/Protheses used in Learning/Medical Factors:

Referral Problem(s):

Assessment Plan & Procedure (Including date of initiation and expected duration of program)

Behavioral Observations:

Assessment Summary: (Present level of functioning and measure used to obtain information)
Sensory:
Physical/Motor:
Gross:
Fine:
Language:
Aptitude:
Auditory:
Visual:
Academics:
Reading:
Math:
Spelling:
Other:
General Info:
Intellectual:
Social/Emotional:

Environmental Conditions & Supports:

Table 5 (continued)

EDUCATIONAL PRESCRIPTION

Concept & Strategies of Prescription:

Long Term Goals-Academic/Behavior

| Entering Behavior | Short Term Goal Term: _____ | Instructional Procedures and Materials |
|---|---|---|
| | | |

Evaluation Procedures:

Data Attached:

## Chapter III

## Personnel

### Teachers

Certification practices for teachers of the severely or physically/multiply handicapped population vary widely throughout the United States. There is a major movement observed for states to implement a certification for the severely/profoundly handicapped which is cross-categorical. There is a trend in Florida as in other states to move toward requiring a competency based certificate in order to teach the severely or multiply handicapped child who may be physically impaired. As more severely handicapped children enter the special education, public school educational delivery system, educators are beginning to recognize a need to change certification requirements and to require skills that have not been required in the past. Information which teachers reported they needed in order to be effective in their current positions are reported in Table 6 (Dykes, 1972).

One of the greatest needs is for inservice education for teachers already employed to teach to PI/MH children. There are many advances being made in various related fields which the teacher needs to know about in order to participate in transdisciplinary discussions and to serve as a child advocate. Advances in medicine, law, allied health fields, speech, and electronic devices are all part of the knowledge base needed by teachers of the severely handicapped. Since the children now being serviced in PI/MH programs are much more involved than those serviced in the 1950's and 60's, it is important that the more

Table 6

Competencies Needed by Teachers of the Physically Impaired/Multiply Handicapped

I. General Information

1. Interpreting reports of medical doctors, psychologists, social workers, etc., and making recommendations based on this information.

2. Educational aspects of crippling conditions and other health impairments.

3. Types of sensory difficulties which may be experienced by COHI children, i.e., vision, hearing, and tactile discrimination.

4. Counseling of COHI children for better mental health, realistic vocational goal setting, and academic achievement.

5. Functioning as a member of an interdisciplinary, professional team in programming for a child.

6. Medical aspects of crippling conditions and other health impairments.

7. Understanding of social and emotional problems which may arise from health problems such as epilepsy, cardiac limitations, etc.

8. To help physically handicapped children develop realistic personal attitudes regarding their handicap.

Table 6 (continued)

9. Adapting instructional media and materials to meet the needs of COHI children.

10. Effective remedial instruction procedures for COHI children.

11. Disciplining of pupils in COHI programs.

12. Speech problems of COHI children.

13. Attitudes of society toward the crippled and malformed.

14. Behavior management techniques for COHI children.

15. Knowledge and acceptance of one's own strengths and limitations as a teacher of COHI children.

16. Establishing curricula for COHI programs in the schools.

17. Teaching multi-ability groups of COHI children as a class.

18. Knowledge of vocational preparation skills which COHI children need to develop during school years.

19. Knowledge of efficient record keeping procedures in order to chart each child's progress in all academic subjects and in such skills as social and recreation.

Table 6 (continued)

20. Recreation and extra curricular programs for the COHI child.

21. Knowledge of ways to involve the more severely involved children in first hand experiences in exploring their environment - such as field trips and recreational activities.

22. Helping the COHI child develop varied coping strategies for different environments such as at home and at school.

23. Developing accepting, helpful attitudes toward COHI children among non-teaching building personnel - librarians, cafeteria workers, secretaries, bus drivers, custodians, etc.

24. Helping principals understand their role in providing meaningful educational experiences for COHI children in their building.

25. Management of a child in convulsion.

26. Methods of communication of non-verbal children.

27. Constituting and organizing class group of COHI children.

II. Assessment and Evaluation

1. Evaluation and assessment of intellectual, social, physical, and emotional levels of

Table 6 (continued)

development as related to COHI children.

2. Interpreting tests to identify specific educational needs of children in COHI programs.

3. Administration of tests to identify specific educational needs of children in COHI programs.

4. Evaluation of progress of students in COHI programs.

5. Skills of a diagnostic-prescriptive teacher.

6. Developing and evaluating guidelines for COHI programs.

III. Intervention Strategies

1. Helping each child to experience success and self-satisfaction in his educational experiences.

2. Knowledge of various educational techniques and curricula necessary for reaching children functioning at various levels of intellectual ability.

3. Ability to create a classroom atmosphere conducive to a good mental health.

4. Selecting meaningful instructional materials for COHI children.

Table 6 (continued)

5. Knowledge of and ability to use various types of reinforcement schedules in order to modify behavior.

6. Ways to motivate COHI children.

7. Developing speech and language programs for COHI children in a classroom program.

8. Various techniques for teaching reading to COHI children.

9. Various techniques for teaching math to COHI children.

IV. Community and Parent Interaction

1. Ways of securing parental cooperation with the school and the on-going educational program in which their child is involved.

2. Knowledge of the roles of various professional personnel in programming for the COHI child, i.e., physical therapist, social worker, psychologist, pediatrician, etc.

3. Knowledge of national, state, community and school district sources for help for the teacher of COHI children and how to effectively obtain help from these resource persons and materials.

4. Knowledge of family organization and roles in various cultural and socio-economic groups.

Table 6 (continued)

5. Counseling parents of COHI children.

6. Types of funding available from various local, state, and national agencies to support programs for COHI children.

experienced teachers who held primarily academic teaching roles be helped to learn strategies required in order to meet the needs of the more involved students entering public school programs in the 1970's. Many of the children who were assigned to classrooms for the physically handicapped a decade ago are now being provided for in the educational mainstream or in resource progams for the learning disabled, slow learner, etc.

Teacher Aide

The attitude and ability of the teacher aide are critical in the functioning of the program. This individual should have a desire, more than just a job for pay, to work with the severely handicapped. The aide will be responsible for meeting the physical needs of the children during the day as well as assisting the various team members with individual or small group work while under supervision. In some districts the bus driver who brings the children to school serves as the aide. Some schools have volunteer parent or club members as aides.

An inservice period should be provided for all aides before they are assigned to a class for the severely handicapped. This training should include: management of a child with various physical needs, e.g., toileting procedures for a child using a catheter, wheel chair, etc., management of a child in a seizure state, observation techniques, and the role and goals of the various team members with whom they will work.

It is important that the aide have the physical stamina and strength which is required to lift and

reposition children. A mental attitude of support not pity for the children is also a must. The roles of various program personnel are described in the work by Cooley (1976).

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## Chapter IV

### Administration

It is the responsibility of the principal and/or district officer to oversee the implementation and evaluation of the educational program for the PI/MH child. This may require that integration and direction be provided for more personnel and agencies than for any other program in special education. It is expected that educators, physical, occupational, speech, and recreation therapists as well as health, assessment, and counseling personnel will be employed at the district level to provide services for the child. In addition, in many communities, national organizations such as United Cerebral Palsy, Easter Seals, March of Dimes, etc. and state agencies such as children's medical services and the division of health and rehabilitation services, etc. provide additional direct services to the children in school. It is paramount for the child to receive the optimal program, that the administrator know the roles, goals, and plans of each group and staff member, and that all persons who provide services are required to plan together on a frequent basis. If trans-disciplinary and agency planning does not occur, then the child and parents are likely to become highly frustrated as they begin to feel caught between professionals trying to provide services. This may lead to withdrawal of the child from the program or the development of a non-cooperative or laissez-faire parental attitude. One member of the treatment team should be held directly responsible for communication between the total school program and the parent(s) on a daily or weekly basis.

## Scheduling

It is suggested that before any time blocks are set aside for therapy, education, etc., in the child's day that all staff evaluations be carried out and that intervention priorities be established for the child. For the severely handicapped child to be serviced each day or each week by all the professionals who can help him may mean that his time is so fractionated that he gains very little from 10 minutes here, thirty minutes there. If the transdisciplinary model is carried out, the child does not go to physical therapy for 30 minutes then to speech for 30 minutes, etc., but, instead, everything the child does is structured to meet the various therapy demands which are appropriate for him. This requires that therapists and educators know the goals and procedures of others who are working with the child. It also means that professional domains of the physical therapy room, the classroom, etc. are no longer seen as the place where physical therapy, education, etc. are carried out exclusively. PROFESSIONALS MUST WORK AND TALK TOGETHER ON A DAILY BASIS IF THE NEEDS OF THE CHILDREN ARE TO BE MET. Vocabularies must be blended so that communication can occur, e.g., the physical therapist using the term "hyperactive" is referring to opposing muscle groups being contracted simultaneously while to the educator "hyperactive" means out-of-seat, lack of attending behavior.

Once priorities have been established for the child then a daily plan of integrated, appropriate activities should be planned. If the schedule sheet looks like - PT from 9:00 - 9:30, OT from 9:30 - 10:00, speech 10:00 - 10:30, etc., then an transdisciplinary optimal program has not yet been established.

## Accountability

In such a complex service delivery system as is required for these children, it is imperative that each team member keep detailed information on assessment, daily programming, and progress of the child. A standard set of forms should be prepared so that each team member can make use of data collected by others. Each team member is responsible for (1) developing at least part of the individual education program (IEP) for the child and (2) seeing that the IEP is implemented and evaluated. The following components must appear in each IEP according to Public Law 94-142: (1) The present level of performance of the child in each area of development; (2) Annual goals; (3) Short term goals - usually for an instructional period of 6-9 weeks; (4) Specific educational services to be provided; (5) Statement of extent to which child will be able to participate in the regular education program; (6) Projected date for initiation of services; (7) Expected duration of services to be provided; (8) Appropriate criteria and evaluation procedures;(9) Schedule for determining at least annually, whether instructional objectives have been met, are being met, and/or should be changed.

## Transportation

One of the most difficult administrative procedures seems to be providing for the movement of the child to and from the school. The following arrangements or a combination of arrangements may be used: (1) Transport the child on the regular bus with a transfer of buses from the home school to the special facility; (2) Use a mini van or bus assigned specifically to exceptional student trans-

portation; (3) Assign special therapy staff to a traveling therapy room which is assigned to the various exceptional child centers (see Mobile Van Project for the Physically Handicapped - Title III Project - Palm Beach County, West Palm Beach, Florida); (4) Pay mileage costs for a volunteer, family member, or agency worker to transport the child; (5) Use a community foster placement for weekday nights for a child who is too far away and/or too fragile to be transported a long distance each day.

Time Chart for Program Implementation

In order to initiate or expand a program for the severely physically/multiply handicapped the following checklist and time line is proposed.

1. 1 year prior to beginning program:
   a. Receive approval for program from local, state, or other agency
   b. Identify staffing needs in all areas
   c. Initiate child find - see Table 1 for community resource - inform local diagnostic and resource center staff, regional resource center, etc.
   d. Develop community support for programs
   e. Develop facility specifications

2. Six months prior to initiating program:
   a. Begin evaluation of children potentially eligible for service
   b. Initiate search for appropriate staff
   c. Obtain facilities
   d. Begin to consider transportation, supplemental resources for services, funds, and material.

e. Establish paradigm for interaction of the team and support personnel and agencies
f. Place order for materials.

3. Three months prior to initiating service:
   a. Contract for staff and facilities
   b. Order any specialized equipment not already ordered
   c. Determine eligible children
   d. Develop all forms and procedures to be followed - get forms to staff members, parents, etc.
   e. Finalize transportation arrangements

4. Pre-planning time 2-3 weeks of staff working together:
   a. Develop priorities and plans for each child
   b. Hold meetings with parents, agencies, etc.
   c. Conduct home visits
   d. Invite interested school, community, newspaper, etc. persons to visit facility
   e. Develop IEP for each child - collect all paperwork for school use.

## Facilities

General rules for establishing facilities include:

1. Most space should be designated for multipurpose use; as populations, programs, and staffing patterns change, flexibility is required.

2. The area must be barrier free including: entry area to play, class, and toileting; and mainstreaming areas. Generally 60 square feet should be allowed per student in class area (Calvonini, 1969).

3. The furniture for the classrooms, etc., should be adjustable and be able to be used in different ways. Not all chairs, tables, etc. should match but each should serve a specific function or meet a potential need, e.g., some chairs that are used by the children need to be straight back, others with arms, others with curved backs, etc. In general all furniture must be sturdy and well balanced with a weighted base.

4. In addition to regular education space needs, special areas should be provided for (a) gaining self-help skills - feeding, dressing, etc.; (b) toileting - support bars, space for an assistant, changing table and physical equipment storage areas; (c) quiet or rest activity; (d) recreation; (e) therapy; (f) staffing; (g) reception - waiting room; (h) storage; and (i) clinic or examining area.

If the staff is aware of all of these needs and a program is developed and frequently re-evaluated, then the chances of having a viable, comprehensive program that meets the needs of the severely involved physically and multiply handicapped are great.

Table 7 contains the building code standards for areas for the handicapped.

Table 7

Standards for Adapting Spaces to Meet the Needs of the Handicapped

Facilities

Guidelines for building accessibility have been proposed by the President's Committee on Employment of the Handicapped. The guidelines include:

| | |
|---|---|
| **Doors:** | |
| Minimum Clearing for Opening | 2'8" |
| Maximum Pressure to Open | 8 lbs. |
| Threshold Height Maximum | 3/4" |
| Depth Between 2 Doors | 6'6" |
| Handles, Height From Floor | 3'6" |
| **Stairs:** | |
| Rise-Maximum (Exterior) | 5 3/4" |
| (Interior) | 7" |
| Tread Width-Minimum | 14" |
| Handrails (Both Sides) From Floor | 32" |
| Handrails-Horizontal at Bottom and Top of Stairs | 32" |
| **Corridors:** | |
| Minimum Width | 5' |
| **Ramp:** | |
| Maximum Gradient | 8-10% |
| Rest Areas No More Than 30' Apart | 30' |
| **Toilets:** | |
| Stall Door-Opening Clearance | 2'8" |
| Stall Width | 3' |
| Stall Depth | 4'10"-5'6" |
| Grab Bars | 11/2" diameter, 11/2" from wall, 33" above floor |

Table 7 (continued)

| | |
|---|---|
| Sinks: | |
| Di tance From Floor/Clear Space | 26" |
| Lever Handles | |
| Hot Water Pipes Shielded Underneath | |
| Drinking Fountains: | |
| Top Edge Height | 3' |
| All Controls and Spouts at Front of Fountain | |
| Light Switches: | |
| Maximum Height From Floor | 3'-3'6" |
| Electric Outlets: | |
| Height From Floor | 18"-24" |
| Telephones-Public: | |
| Height of Dial From Floor | 3'-4' |
| Vending Machine: | |
| Controls Height | 2'-4' |
| Full Pressure Not To Exceed | 8 lbs. |

Considerations should also be made in terms of storage, noise and general space allocations.

If these standards for new structures or for adapting existing school space are followed then the environment will be an optimal one for the physically impaired child.

## Summary

The possibility of education for all citizens has begun to be realized in the last five years. For the first time in America, judicial, legislative, and congressional mandates are clear - every citizen has the right to an education: no child, regardless of his intellectual, physical, language or social/emotional developmental level, can be excluded from schooling. The two guiding principles (1) that the strength of democracy is heterogeneity of and participation by all citizens and (2) that anyone can learn something all of the time if the appropriate teaching strategy is used are fundamental to inclusion and programming for severely impaired and multiply handicapped children in the schools.

It is both a frustrating and an exciting feeling to be part of the development of comprehensive and long term efforts made on behalf of these children. It is hoped that this monograph and the efforts of FERDC on behalf of school districts who have established or are initiating programs for this population are helpful.

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